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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,875	05/02/2001	Kunihiko Yano	Q64302	5307

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2100 Pennsylvania Avenue N W
Washington, DC 20037-3213

EXAMINER

NORDMEYER, PATRICIA L

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/01/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/830,875	Applicant(s) YANO, KUNIHIKO	
	Examiner Patricia L. Nordmeyer	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “(1-100 m μ m in particle diameter)” in claim 21 is unclear, which renders the claim vague and indefinite. It is unclear if the information is just stated as a clarification of what is meant by “fine particles”, or if it is claiming the desired particle size for the oxides in the hard coating film.

The phrase “(where R1 and R2 denotes ... and m and n each is 0 or 1.)” in claim 22 is unclear which renders the claim vague and indefinite. It is unclear if the information is just stated as a clarification of what is meant by the symbols in the chemical formula, or if it is claiming what each symbol represents.

Clarification/correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21 and 23 – 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Taniguchi (USPN 4,765,729).

Taniguchi discloses an optical article that uses a resin substrate (Column 2, lines 65 - 68 and Column 9, lines 42 - 452) as part of an optical article. An antireflection film (coating) is formed on the outside of the substrate (Column 18, lines 1 – 3). Before placing the antireflection coating on the substrate, a hard coat film is placed on the substrate (Column 9, lines 53 – 57 and Column 18, lines 20 - 22). A film that is formed by coating and curing contains silica (silicon oxide) particles with diameters between 1 to 200 nm (Column 3, lines 22 – 23) and an organic silicon compound with hydrolysable groups (Column 3, line 52 to Column 5, line 15) forms the hard coating. Both the anti-reflection coating and the hard coating film are formed on both the inner and outer surfaces of the cover glass substrate (Column 14, lines 8 – 9). The antireflection film can have a decorative part by dyeing the film (Column 9, lines 57 – 61). The surface of the antireflection is treated to give it oil and water repellent characteristics (Column 2, lines 37 – 40).

Regarding the limitation of the hard coating being formed by coating and curing in claim 21 and 24 and the anti-reflection coating undergoing water and oil repellent treatment in claims

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23 and 26, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation of being formed by coating and curing and undergoing water and oil repellent treatment are methods of production and therefore do not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Regarding the limitation of the cover being used to cover the view plane of a liquid crystal display placed in a housing of a portable apparatus and to make visible the view plane of the display unit in claim 27, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art.

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See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

5. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mase et al. (USPN 5,693,366).

Mase et al discloses an optical article that uses a resin substrate (Column 2, lines 32 - 35) as part of an optical lens with a primer layer formed from thermosetting polyurethane against the plastic substrate and covered with the hard coat layer (Column 4, lines 21 - 23 and Column 5, lines 16 - 30). An antireflection film (coating) is formed on the outside of the hard coat layer (Column 4, lines 65 - 68). Both the anti-reflection coating and the hard coating film are formed on both the inner and outer surfaces of the cover glass substrate (Column 7, lines 12 and lines 20 - 22).

Regarding the limitation of the hard coating being formed by coating and curing in claim 18, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation of being formed by coating and curing is a method of production and therefore does not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not

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germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Regarding the limitation of the cover being used to cover the view plane of a liquid crystal display placed in a housing of a portable apparatus and to make visible the view plane of the display unit in claim 20, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 12 – 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Yokoo et al. (USPN 4,634,270).

Taniguchi discloses an optical article that uses a resin substrate (Column 2, lines 65 - 68 and Column 9, lines 42 - 452) as part of an optical article. An antireflection film (coating) is formed on the outside of the substrate (Column 18, lines 1 - 3). Before placing the antireflection coating on the substrate, a hard coat film is placed on the substrate (Column 9, lines 53 - 57 and Column 18, lines 20 - 22). A film that is formed by coating and curing contains silica (silicon oxide) particles with diameters between 1 to 200 nm (Column 3, lines 22 - 23) and an organic silicon compound with hydrolysable groups (Column 3, line 52 to Column 5, line 15) forms the hard coating. Both the anti-reflection coating and the hard coating film are formed on both the inner and outer surfaces of the cover glass substrate (Column 14, lines 8 - 9). The antireflection film can have a decorative part by dyeing the film (Column 9, lines 57 - 61). The surface of the antireflection is treated to give it oil and water repellent characteristics (Column 2, lines 37 - 40). However, Taniguchi fails to disclose an anti-reflection coating formed on the inner surface of the cover glass substrate without the hard coating film interposed between them.

Yokoo et al. teaches a transparent substrate made from an inorganic transparent material (Column 3, lines 46 - 47) with an antireflection coating formed on the inner and outer surfaces without a hard coat film (Column 3, lines 36 - 38) in a cover plate for the purpose of forming a cover plate that has good mechanical strength with a smaller amount of absorption of the light.

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the an optical article with a hard coat film and antireflection coating on the outer surface and an antireflection coating on the inside surface with a film base in Taniguchi in order to form a cover plate with a good mechanical strength between the antireflection coating and the substrate on the inner surface and good adhesion between the hard coat and anti-reflection coating as taught by Yokoo et al.

Regarding the limitations of the hard coating film is an organic thin film transferred from a transfer foil in claim 12 and the anti-reflection coating undergoing water and oil repellent treatment in claim 16, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation of the hard coating being transferred foil and undergoing water and oil treatment are methods of production and therefore do not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the

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prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Regarding the limitation of the cover being used to cover the view plane of a liquid crystal display placed in a housing of a portable apparatus and to make visible the view plane of the display unit in claim 17, it has been held that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Yokoo et al. as applied to claims 12 – 14, 16 and 17 above, and further in view of Mase et al. (USPN 5,693,366).

Taniguchi, as modified with Yokoo et al., discloses the claimed cover glass except for the primer layer being interposed between the cover glass substrate and the hard coating film.

Mase et al. teaches a primer layer formed from thermosetting polyurethane against the plastic substrate and covered with the hard coat layer (Column 4, lines 21 – 23 and Column 5,

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lines 16 – 30) in an optical article that uses a resin substrate (Column 2, lines 32 - 35) as part of an optical lens for the purpose of making a lens that has greater resistance to impact.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the polyurethane resin primer in the modified Taniguchi in order to have a lens that has greater resistance to impact as taught by Mase et al.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mase et al. in view of Taniguchi.

Mase et al discloses an optical article that uses a resin substrate (Column 2, lines 32 - 35) as part of an optical lens with a primer layer formed from thermosetting polyurethane against the plastic substrate and covered with the hard coat layer (Column 4, lines 21 – 23 and Column 5, lines 16 – 30). An antireflection film (coating) is formed on the outside of the hard coat layer (Column 4, lines 65 – 68). Both the anti-reflection coating and the hard coating film are formed on both the inner and outer surfaces of the cover glass substrate (Column 7, lines 12 and lines 20 – 22). However, Mase et al. fails to disclose the anti-reflection coating on the outer surface of the cover glass substrate undergoing water and oil repellent treatment.

Taniguchi teaches treating the surface of the antireflection is treated to give it oil and water repellent characteristics (Column 2, lines 37 – 40) for the purpose of keeping water droplets from impairing the vision of the user.

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the water repellent coating in *Mase et al.* in order to keep keeping water droplets from impairing the vision of the user as taught by Taniguchi.

Regarding the limitation of the anti-reflection coating undergoing water and oil repellent treatment in claim 16, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP §2113. In this case, the limitation of undergoing treatment is a method of production and therefore does not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi in view of Takeshita et al. (USPN 6,057,039).

Taniguchi discloses an optical article that uses a resin substrate (Column 2, lines 65 - 68 and Column 9, lines 42 - 452) as part of an optical article. An antireflection film (coating) is formed on the outside of the substrate (Column 18, lines 1 - 3). Before placing the antireflection coating on the substrate, a hard coat film is placed on the substrate (Column 9, lines 53 - 57 and Column 18, lines 20 - 22). A film that is formed by coating and curing contains silica (silicon oxide) particles with diameters between 1 to 200 nm (Column 3, lines 22 - 23) and an organic silicon compound with hydrolysable groups (Column 3, line 52 to Column 5, line 15) forms the hard coating. Both the anti-reflection coating and the hard coating film are formed on both the inner and outer surfaces of the cover glass substrate (Column 14, lines 8 - 9). The antireflection film can have a decorative part by dyeing the film (Column 9, lines 57 - 61). The surface of the antireflection is treated to give it oil and water repellent characteristics (Column 2, lines 37 - 40). However, Taniguchi fails to disclose the coating composition including a disilane compound represented by the formula in the claim 22 which includes a hydrocarbon group, hydrolysable group and an organic group containing a carbonate group or epoxy group.

Takeshita et al. teaches a disilane compound having the same formula that includes a hydrocarbon group, hydrolysable group and an organic group containing a carbonate group or epoxy group (Column 2, lines 40 - 50) on a synthetic resin made lens (Column 1, lines 4 - 5) for the purpose of forming a coating that has improved hardness and transparency along with high durability.

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the coating with the disilane compound in Taniguchi in order to form forming a coating that has improved hardness and transparency along with high durability as taught by Takeshita et al.

Response to Arguments

11. Applicant's arguments with respect to claims 12 - 27 have been considered but are moot in view of the new ground(s) of rejection. However, since some of the same references are applied to the claims above, the arguments will be responded to below.

In response to Applicant's argument that Taniguchi does not disclose anti-reflection coatings formed on both the inner and outer surfaces of the substrate, please the new rejection above. Taniguchi does disclose the coatings (Column 14, lines 8 - 9).

In response to Applicant's argument that the structure of the hard coating film being transferred from a transfer foil is distinguishable from the structure of a hard coating being formed by coating, no weight is give to process in product claims. Please see the above rejections.

In response to Applicant's argument that the preformed film is advantageous due to productivity and production cost, the amount of money saved by using different production does

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not make the claimed item patentably different from article of Taniguchi as modified with Yokoo et al. Both items have the same structure.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the gap in claim 21 and the curvature of the lens) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (703) 306-5480. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Patricia L. Nordmeyer
Examiner
Art Unit 1772

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pln

April 21, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/29/03